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## **I. STATUS OF CLAIMS**

Claims 1-26 are pending. No claim amendments have been made.

Claims 1-9, 12-20, and 23 were rejected under 35 U.S.C. 102(a) as being anticipated by Burns et al. (U.S. Patent 6,088,665, "Burns") *See Examiner's Office Action*, p. 2 (14 December 2006). Claims 10, 11, 21, and 22 were rejected under 35 U.S.C. 103(a) as being obvious over Burns in view of McNeil (U.S. 2003/0172221) *Id.* at p. 4.

Claims 24-26 were not rejected on any ground. Consequently, Applicants are treating these claims as allowed.

## **II. ISSUES TO BE REVIEWED**

The issues in this response relate to whether the art of record establishes a *prima facie* case of the unpatentability of Applicant's Claims 1-23. For reasons set forth elsewhere herein, Applicant respectfully asserts that the art of record does not establish a *prima facie* case of the unpatentability of any pending claim. Accordingly, Applicant respectfully requests that Examiner hold all pending Claims 1-26 allowable for at least the reasons described herein, and issue a Notice of Allowance on same.

## **III. ARGUMENT: ART OF RECORD DOES NOT ESTABLISH *PRIMA FACIE* CASE OF UNPATENTABILITY IN VIEW OF CITED ART OF RECORD**

Examiner has stated "Claims 1-9, 12-20, and 23 are rejected under U.S.C. 102(a) as being anticipated by Burns et al. (US 6,088,665)" ("Burns" hereinafter); and "Claims 10, 11, 21, and 22 are rejected under 35 U.S.C. 103(a) as being obvious over Burns et al. (US 6,088,665) in view of McNeil (US 2003/0172221)." *Examiner's Office Action*, pp. 2 and 4 (14 December 2006).

In response, Applicant respectfully asserts herein that, under the MPEP and legal standards for patentability as set forth below, the art of record does not establish a *prima facie* case of the unpatentability of Applicant's claims at issue. Specifically, Applicant respectfully shows below that the art of record does not show or suggest the recitations of Applicant's claims at issue, and hence fails to establish a *prima facie* case of unpatentability. Accordingly,

Applicant respectfully requests that the Examiner withdraw his rejections and hold all claims to be allowable over the art of record.

#### **A. MPEP Standards for Patentability<sup>1</sup>**

The MPEP states as follows: “the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant. . . If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent.” MPEP § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)); *In Re Glaug* 283 F.3d 1335, 62 USPQ2d 1151 (Fed. Cir. 2002). (“During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the applicant is entitled to the patent.”). Accordingly, unless and until an examiner presents evidence establishing *prima facie* unpatentability, an applicant is entitled to a patent on all claims presented for examination.

#### **1. MPEP Standards for Determining Anticipation**

An examiner bears the initial burden of factually supporting any *prima facie* conclusion of anticipation. *In Re Skinner*, 2 U.S.P.Q.2d 1788, 1788-89 (B.P.A.I. 1986); MPEP § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992) (“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability....”). Failure of an examiner to meet this burden entitles an applicant to a patent. *Id.* (“[i]f examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent”).

The MPEP indicates that in order for an examiner to establish a *prima facie* case of anticipation of an applicant’s claim, the examiner must first interpret the claim,<sup>2</sup> and thereafter

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<sup>1</sup> Applicant is aware that Examiner is familiar with the MPEP standards. Applicant is merely setting forth the MPEP standards to serve as a framework for Applicant’s arguments following and to ensure a complete written record is established. Should Examiner disagree with Applicant’s characterization of the MPEP standards, Applicant respectfully requests correction.

show that the cited prior art discloses the same elements, in the same arrangement, as the elements of the claim which the examiner asserts is anticipated. More specifically, the MPEP states that “[a] claim is anticipated *only if each and every element as set forth in the claim is found*, either expressly or inherently described, in a single prior art reference. . . . The identical invention must be shown in as complete detail as is contained in the . . . claim. . . . The elements must be arranged as required by the claim . . . .”). *MPEP* § 2131. Consequently, under the guidelines of the MPEP set forth above, if there is *any* substantial difference between the prior art cited by an examiner and an applicant’s claim which the examiner asserts is rendered anticipated by the prior art, the prior art does NOT establish a *prima facie* case of anticipation and, barring other rejections, the applicant is entitled to a patent on such claim.

## 2. MPEP Standards for Determining Obviousness

“[T]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.”<sup>3</sup> *MPEP* § 2142. The MPEP indicates that in order for an examiner to establish a *prima facie* case that an invention, as defined by a claim at issue, is obvious, the examiner must (1) interpret the claim at issue; (2) define one or more prior art reference components relevant to the claim at issue; (3) ascertain the differences between the one or more prior art reference components and the elements of the claim at issue; and (4) adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device substantially equivalent to the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual elements of the claim at issue;

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<sup>2</sup> With respect to interpreting a claim at issue, the MPEP directs that, during examination -- as opposed to subsequent to issue -- such claim be interpreted as broadly as the claim terms would reasonably allow, in light of the specification, when read by one skilled in the art with which the claimed invention is most closely connected. *MPEP* § 2111.

<sup>3</sup> An invention, as embodied in the claims, is rendered obvious if an examiner concludes that although the claimed invention is not identically disclosed or described in a reference, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *MPEP* § 2141 (citing 35 U.S.C. § 103).

and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved. *MPEP* § 2141; *MPEP* § 2143. Each of these forgoing elements is further defined within the MPEP. *Id.*

**a) Interpreting a Claim at Issue**

With respect to interpreting a claim at issue, the MPEP directs that, during examination -- as opposed to subsequent to issue -- such claim be interpreted as broadly as the claim terms would reasonably allow when read by one skilled in the art with which the claimed invention is most closely connected. In practice, this is achieved by giving each of the terms in the claim the “plain meaning” of the terms as such would be understood by those having ordinary skill in the art, and if portions of the claim have no “plain meaning” within the art, or are ambiguous as used in a claim, then the examiner is to consult the specification for clarification. *MPEP* § 2111.

**b) Definition of One or More Prior Art Reference Components Relevant to the Claim at Issue**

Once the claim at issue has been properly interpreted, the next step is the definition of one or more prior art reference components (*e.g.*, electrical, mechanical, or other components set forth in a prior art reference) relevant to the properly interpreted claim at issue. With respect to the definition of one or more prior art reference components relevant to the claim at issue, the MPEP defines three proper sources of such prior art reference components, with the further requirement that each such source must have been extant at the time of invention to be considered relevant. These three sources are as follows: patents as defined by 35 U.S.C. § 102, printed publications as defined by 35 U.S.C. § 102, and information (*e.g.*, scientific principles) deemed to be “well known in the art”<sup>4</sup> as defined under 35 U.S.C. § 102. *MPEP* § 2141.

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<sup>4</sup> The fact that information deemed to be “well known in the art” can serve as a proper source of prior art reference components seems to open the door to subjectivity, but such is not the case. As a remedy to this potential problem, *MPEP* § 2144.03 states that if an examiner asserts that his position is derived from and/or is supported by a teaching or suggestion that is alleged to have been “well known in the art,” and that if an applicant traverses such an assertion (that something was “well known within the art”), the examiner must cite a reference in support of his or her position. The same MPEP section also states that when a rejection is based on facts within the personal knowledge of an examiner, the data should be stated as specifically as possible, and the facts must be supported, when called for by the applicant, by an affidavit from the examiner. Such an affidavit is subject to contradiction or explanation by the affidavits of the applicant and other persons. *Id.* Thus, all sources of prior art reference components must be objectively verifiable.

**c)      Ascertainment of Differences between Prior Art Reference  
Components and Claim at Issue; Teaching to Modify and/or  
Combine Prior Art Reference Components to Remedy Those  
Differences in Order to Achieve Recitations of Claim at Issue**

With one or more prior art components so defined and drawn from the proper prior art sources, the differences between the one or more prior art reference components and the elements of the claim at issue are to be ascertained. Thereafter, in order to establish a case of *prima facie* obviousness, an examiner must set forth a rationale, supported by objective evidence<sup>5</sup> sufficient to demonstrate under a preponderance of the evidence standard, that in the prior art extant at the time of invention there was a teaching to modify and/or combine the one or more prior art reference components to construct a device practicably equivalent to the claim at issue.

The preferable evidence relied upon is an express teaching to modify/combine within the properly defined objectively verifiable sources of prior art. In the absence of such express teaching, an examiner may attempt to establish a rationale to support a finding of such teaching reasoned from, or based upon, express teachings taken from the defined proper sources of such evidence (*i.e.*, properly defined objectively verifiable sources of prior art). *MPEP* § 2144; *In re Dembiczak*, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999).

The MPEP recognizes the pitfalls associated with the tendency to subconsciously use impermissible “hindsight” when an examiner attempts to establish such a rationale. The MPEP has set forth at least two rules to ensure against the likelihood of such impermissible use of hindsight. The first rule is that:

under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical “person of ordinary skill in the art” when the invention was unknown and just before it was made. In view of all factual information,<sup>6</sup> the examiner must then make a determination whether the claimed invention “as a whole” would have been obvious at that time to that person. Knowledge of an Applicant’s disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the “differences,” conduct the search, and evaluate the “subject matter as a whole” of the invention. The tendency to resort to “hindsight” based upon an Applicant’s disclosure is often difficult to avoid due to

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<sup>5</sup> The proper sources of the objective evidence supporting the rationale are the defined proper sources of prior art reference components, discussed above, with the addition of factually similar legal precedent. *MPEP* § 2144.

<sup>6</sup> “Factual information” is information actually existing or occurring, as distinguished from mere supposition or opinion. *Black’s Law Dictionary* 532 (5th ed. 1979).

the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

*MPEP* § 2142 (emphasis added). Thus, if the only objective evidence of such teaching to modify and/or combine prior art reference components is an applicant's disclosure, no evidence of such teaching exists.<sup>7</sup>

The second rule is that if an examiner attempts to rely on some advantage or expected beneficial result that would have been produced by a modification and/or combination of the prior art reference components as evidence to support a rationale to establish such teachings to modify and/or combine prior art reference components, the *MPEP* requires that such advantage or expected beneficial result be objectively verifiable teachings present in the acceptable sources of prior art (or drawn from a convincing line of reasoning based on objectively verifiable established scientific principles or teachings). *MPEP* § 2144. Thus, as a guide to avoid the use of impermissible hindsight, these rules from the *MPEP* make clear that absent some objective evidence, sufficient to persuade under a preponderance of the evidence standard, no teaching of such modification and/or combination exists.<sup>8</sup>

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<sup>7</sup> An applicant may argue that an examiner's conclusion of obviousness is based on improper hindsight reasoning. However, "[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper." *MPEP* § 2145(X)(A) (emphasis added).

<sup>8</sup> *In Re Sang Su Lee* 277 F.3d 1338 (Fed. Cir. 2002) ("When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.") *See, e.g., McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the *Graham* factors). "The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. *See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" (quoting *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 U.S.P.Q.2d 1225, 1232 (Fed. Cir. 1998))); *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); *In re Dance*, 160 F.3d 1339, 1343, 48 U.S.P.Q.2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988) ("teachings of references can be combined only if there is some suggestion or incentive to do so.") (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984)). The need for specificity pervades this authority. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan,



**B. Technical Material Cited by Examiner Does Not Show/Suggest Recitations of Independent Claim 1 and Dependent Claims 2-11 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

**1. Independent Claim 1**

Independent Claim 1 recites:

A method comprising:  
[a] transmitting at least a part of one or more mote-addressed content indexes.<sup>9</sup>

As shown following, the technical material cited by Examiner does not show at least recitations such as those of clause [a] of Independent Claim 1, and thus Applicant respectfully requests that Examiner allow Independent Claim 1 for at least those reasons.

**a) Technical Material Cited by Examiner Does not Show/Suggest Language of Clause [a] of Independent Claim 1**

With respect to clause [a], Independent Claim 1 recites as follows: “A method comprising: [a] transmitting ... mote-addressed content indexes.”

With respect to clause [a] of Independent Claim 1, Examiner has stated “Burns et al. discloses ... a host connected to a set of field devices (motes), which are “smart” devices in that the each include a microprocessor capable of communication and , in some cases, control functions (column 5, lines 35-53).” *See Examiner’s Office Action*, p. 2 (14 December 2006).

As a initial matter, Applicant respectfully points out that Burns does not disclose motes as suggested by Examiner. Rather, the portion of Burns cited by Examiner discloses:

Referring to FIG. 1, a process control network 10 using the Fieldbus protocol may include a host 12 connected to a number of other devices such as a program logic controller (PLC) 13, a number of controllers 14, another host device 15 and a set

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with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”)).

<sup>9</sup> The lettering of the clauses herein is merely for sake of clarity of argument and should not be taken to imply any particular ordering of the clauses.

of field devices 16, 18, 20, 22, 24, 26, 28, 30 and 32 via a two-wire Fieldbus loop or bus 34. The bus 34 includes different sections or segments, 34a, 34b, and 34c which are separated by bridge devices 30 and 32. Each of the sections 34a, 34b, and 34c interconnects a subset of the devices attached to the bus 34 to enable communications between the devices in a manner described hereinafter. Of course the network of FIG. 1 is illustrative only, there being many other ways in which a process control network may be configured using the Fieldbus protocol. Typically, a configurer is located in one of the devices, such as the host 12, and is responsible for setting up or configuring each of the devices (which are "smart" devices in that they each include a microprocessor capable of performing communication and, in some cases, control functions) as well as recognizing when new field devices are connected to the bus 34, when field devices are removed from the bus 34, receiving data generated by the field devices 16-32 and interfacing with one or more user terminals, which may be located in the host 12 or in any other device connected to the host 12 in any manner.

*See Detailed Description, Burns Col. 5 lines 35-59 (emphasis added).*

As can be seen from the foregoing, the “devices” of Burns include the “field devices” of Burns. Thus, the “field devices” are explicitly disclosed as “connected to the bus” and as “smart” devices in that they each include a microprocessor capable of performing communication and, in some cases, control functions.”

In contrast Applicants explicitly defined “motes” as follows:

[0028] As used herein, the term “mote” typically means a semi-autonomous computing, communication, and/or sensing device as described in the mote literature (e.g., Intel Corporation's mote literature), as well as equivalents recognized by those having skill in the art (e.g., Intel Corporation's smart dust projects).

*See Detailed Description, Jung et al., US 2006/0079285, p. 2, paragraph [0028] (emphasis added).*

Intel in a PowerPoint presentation dated 2004 states:

A “mote” is a tiny wireless computing platform.

In fact “motes”, by persons with ordinary skill in the art, are considered to be different in kind from general sensors, actuators, controllers, etc. and related networks. Burns does not use the term “mote” or “smart dust”. Burns explicitly discloses “field devices” as “connected to the

bus” and as “smart” devices in that they each include a microprocessor capable of performing communication and, in some cases, control functions.” However, Burns does not disclose that the “field devices” are “tiny wireless computing platforms”, motes, or smart dust. Thus, Burns’ “field devices” are not the “motes” recited in clause [a] of Independent Claim 1. Consequently, Burns does not and can not teach “transmitting at least a part of one or more mote-addressed content indexes” as recited in Independent Claim 1.

Examiner also stated “Burns et al. discloses a schematic generator for use in a process control network having distributed control functions. ... The schematic generator of the invention is capable of interrogating each of interconnected field devices connected within a process control network to retrieve linkage data stored in each of the devices. This data may be any data including function process control function data indicating one or more function blocks capable of being performed by each of the devices (mote-addressed control index) (column 3, lines 45-56).” See *Examiner’s Office Action*, p. 2 (14 December 2006).

Applicant respectfully points out that this section of Burns does not disclose the mote-addressed control index as suggested by the Examiner. Rather, the portion of Burns cited by Examiner discloses:

According to one aspect of the present invention a schematic generator includes hardware, software or firmware which operates to interrogate each of a number of interconnected devices within a process control network to retrieve linkage data stored in each of the devices. The retrieved linkage data may be any data pertaining to the manner in which each of the devices is connected to the bus and configured to operate within the process control network and may include, for example, physical device connection data, device identity data, process control function data indicating one or more function blocks capable of being performed by each of the devices, function block communication data pertaining to the manner in which the function blocks of the devices are communicatively linked, function block execution timing data and function block bus communication scheduling data.

*See Detailed Description, Burns Col. 3 lines 45-60 (emphasis added).*

As can be seen from the foregoing, the “retrieved linkage data” of Burns include the “physical device connection data, device identity data, process control function data indicating one or more function blocks capable of being performed by each of the devices, function block communication data pertaining to the manner in which the function blocks of the devices are

communicatively linked, function block execution timing data and function block bus communication scheduling data” disclosed in Burns.

In contrast Applicants disclose “mote-addressed control index” as follows:

[0035] In various implementations, contemporaneous with and/or subsequent to index creation agent 202 communicating with the device entities, index creation unit 202 creates one or more mote-addressed content indexes which in some implementations are associated with the mote-network address of the mote at which index creation unit 202 resides. The inventors point out that examples of the term "index," and/or phrases containing the term "index," exist in the text (e.g., independent claims, dependent claims, detailed description, and/or summary) and/or drawings forming the present application and that such term and/or phrases may have scopes different from like terms and/or phrases used in other contexts. Mote 200 is depicted for sake of illustration as having a mote-address of 6A. Accordingly, specific examples of more general mote-addressed content indexes are shown in FIG. 2 as mote 6A-addressed sensing index 204 and mote 6A-addressed control index 206, which respectively list the sensing and control capabilities in association with device-identifiers associated with devices present and/or available at mote 200; in addition, shown as yet another specific example of more general mote-addressed content indexes is mote 6A-addressed routing/spatial index 252 which typically contains a listing of mote-network addresses of those motes directly accessible from mote 200 and such directly accessible motes' spatial orientations relative to mote 200 and/or some other common spatial reference location (e.g., GPS)..

*See Detailed Description, Jung et al., US 2006/0079285, p. 3, paragraph [0035] (emphasis added).*

Furthermore “motes”, by persons with ordinary skill in the art, are considered to be different in kind from general sensors, actuators, controllers, etc. and related networks. Burns does not use the term “mote” or “smart dust”. Burns explicitly discloses “physical device connection data, device identity data, process control function data indicating one or more function blocks capable of being performed by each of the devices, function block communication data pertaining to the manner in which the function blocks of the devices are communicatively linked, function block execution timing data and function block bus communication scheduling data” However, Burns does not disclose that any of the data is “mote-addressed” as recited in clause [a] of Independent Claim 1. Consequently, Burns does not

and can not teach “transmitting at least a part of one or more mote-addressed content indexes” as recited in Independent Claim 1.

**Accordingly**, under the MPEP standards as set forth above, the art of record does not establish a *prima facie* case that Burns anticipates Independent Claim 1. Thus, Applicant respectfully asks Examiner to hold Independent Claim 1 allowable and to issue a Notice of Allowability of same.

**2. Dependent Claims 2-11 Patentable for at Least Reasons of Dependency from Independent Claim 1**

Claims 2-11 depend either directly or indirectly from Independent Claim 1. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 2-11 are patentable for at least the reasons why Independent Claim 1 is patentable. Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 2-11 patentable for at least the foregoing reasons, and issue a Notice of Allowability on same.

**C. Technical Material Cited by Examiner Does Not Show Recitations of Independent Claim 12 and Dependent Claims 13-22 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

Independent Claim 12 and Dependent Claims 13-22 are respective “means for” versions of Independent Claim 1 and Dependent Claims 2-11. Applicant respectfully points out that, with respect to “means for” claims, MPEP § 2182, *Scope of the Search and Identification of the Prior Art*, states that with respect to patentability examination of means for claims “the *application* of a prior art *reference* to a *means* or step *plus function* limitation *requires* that the *prior art* element *perform* the *identical function specified in the claim*.”

In view of these MPEP guidelines, Applicant respectfully suggests that the art of record does not establish a *prima facie* case of the unpatentability of Independent Claim 12 and Dependent Claims 13-22 for reasons analogous to those why such art does not establish a *prima facie* case of unpatentability of Independent Claim 1 and Dependent Claims 2-11 (e.g., since the functions of Independent Claim 12 are similar to the operations of Independent Claim 1,

Examiner has not established a *prima facie* case that means performing the functions of Independent Claim 12 are taught in the art; other claims are like patentable by extension). Hence, Independent Claim 12 and Dependent Claims 13-22 are patentable for at least the reasons why Independent Claim 1 and Dependent Claims 2-11 are patentable. Accordingly, Applicant respectfully requests that Examiner hold Independent Claim 12 and Dependent Claims 13-22 patentable for at least the reasons as set forth related to Independent Claim 1 and Dependent Claims 2-11, and to thus issue a Notice of Allowability of same.

**D. Technical Material Cited by Examiner Does Not Show/Suggest Recitations of Independent Claim 23 as Presented Herein; Notice of Allowance of Same Respectfully Requested**

**1. Independent Claim 23**

Independent Claim 23 recites:

A system comprising:  
[a] a mote; and  
[b] means for transmitting at least a part of one or more  
mote-addressed content indexes, said means for transmitting  
proximate to a portion of said mote.<sup>10</sup>

As shown following, the technical material cited by Examiner does not show at least recitations such as those of clause [a] or [b] of Independent Claim 23, and thus Applicant respectfully requests that Examiner allow Independent Claim 23 for at least those reasons.

**a) Technical Material Cited by Examiner Does not Show/Suggest Language of Clause [a] of Independent Claim 23**

With respect to clause [a], Independent Claim 23 recites as follows: “A system comprising: [a] a mote.”

With respect to clause [a] of Independent Claim 23, Examiner has stated “Burns et al. discloses ... a host connected to a set of field devices (motes), which are “smart” devices in that the each include a microprocessor capable of communication and , in some cases, control functions (column 5, lines 35-53).” *See Examiner’s Office Action*, p. 2 (14 December 2006).

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<sup>10</sup> The lettering of the clauses herein is merely for sake of clarity of argument and should not be taken to imply any particular ordering of the clauses.

Applicant respectfully points out that Burns does not disclose notes as suggested by Examiner. Rather, the portion of Burns cited by Examiner discloses:

Referring to FIG. 1, a process control network 10 using the Fieldbus protocol may include a host 12 connected to a number of other devices such as a program logic controller (PLC) 13, a number of controllers 14, another host device 15 and a set of field devices 16, 18, 20, 22, 24, 26, 28, 30 and 32 via a two-wire Fieldbus loop or bus 34. The bus 34 includes different sections or segments, 34a, 34b, and 34c which are separated by bridge devices 30 and 32. Each of the sections 34a, 34b, and 34c interconnects a subset of the devices attached to the bus 34 to enable communications between the devices in a manner described hereinafter. Of course the network of FIG. 1 is illustrative only, there being many other ways in which a process control network may be configured using the Fieldbus protocol. Typically, a configurer is located in one of the devices, such as the host 12, and is responsible for setting up or configuring each of the devices (which are "smart" devices in that they each include a microprocessor capable of performing communication and, in some cases, control functions) as well as recognizing when new field devices are connected to the bus 34, when field devices are removed from the bus 34, receiving data generated by the field devices 16-32 and interfacing with one or more user terminals, which may be located in the host 12 or in any other device connected to the host 12 in any manner.

*See Detailed Description, Burns Col. 5 lines 35-59 (emphasis added).*

As can be seen from the foregoing, the “devices” of Burns include the “field devices” of Burns. Thus, the “field devices” are explicitly disclosed as “connected to the bus” and as “smart” devices in that they each include a microprocessor capable of performing communication and, in some cases, control functions.”

In contrast Applicants explicitly defined “notes” as follows:

[0028] As used herein, the term “mote” typically means a semi-autonomous computing, communication, and/or sensing device as described in the mote literature (e.g., Intel Corporation's mote literature), as well as equivalents recognized by those having skill in the art (e.g., Intel Corporation's smart dust projects).

*See Detailed Description, Jung et al., US 2006/0079285, p. 2, paragraph [0028] (emphasis added).*

Intel in a PowerPoint presentation dated 2004 states:

A “mote” is a tiny wireless computing platform.

In fact “motes”, by persons with ordinary skill in the art, are considered to be different in kind from general sensors, actuators, controllers, etc. and related networks. Burns does not use the term “mote” or “smart dust”. Burns explicitly discloses “field devices” as “connected to the bus” and as “smart” devices in that they each include a microprocessor capable of performing communication and, in some cases, control functions.” However, Burns does not disclose that the “field devices” are “tiny wireless computing platforms”, motes, or smart dust. Thus, Burns’ “field devices” are not the “motes” recited in clause [a] of Independent Claim 23. Consequently, Burns does not and can not teach “a mote” as recited in Independent Claim 23.

**b) Technical Material Cited by Examiner Does not Show/Suggest Language of Clause [b] of Independent Claim 23**

With respect to clause [b], Independent Claim 23 recites as follows: “A system comprising: [b] means for transmitting at least a part of one or more mote-addressed content indexes, said means for transmitting proximate to a portion of said mote.”

With respect to clause [b] of Independent Claim 1, Examiner has stated “Burns et al. discloses a schematic generator for use in a process control network having distributed control functions. ... The schematic generator of the invention is capable of interrogating each of interconnected field devices connected within a process control network to retrieve linkage data stored in each of the devices. This data may be any data including function process control function data indicating one or more function blocks capable of being performed by each or the devices (mote-addressed control index) (column 3, lines 45-56).” *See Examiner’s Office Action*, p. 2 (14 December 2006).

Applicant respectfully points out that this section of Burns does not disclose the mote-addressed control index as suggested by the Examiner. Rather, the portion of Burns cited by Examiner disclose:

According to one aspect of the present invention a schematic generator includes hardware, software or firmware which operates to interrogate each of a number of interconnected devices within a process control network to retrieve linkage data stored in each of the devices. The retrieved linkage data may be any data pertaining to the manner in which each of the devices is connected to the bus and configured to operate within the process control network and may include, for example, physical device connection data, device identity data, process control function data indicating one or more function blocks capable of being performed by each of the devices, function block communication data pertaining to the



manner in which the function blocks of the devices are communicatively linked, function block execution timing data and function block bus communication scheduling data.

*See Detailed Description, Burns Col. 3 lines 45-60 (emphasis added).*

As can be seen from the foregoing, the “retrieved linkage data” of Burns include the “physical device connection data, device identity data, process control function data indicating one or more function blocks capable of being performed by each of the devices, function block communication data pertaining to the manner in which the function blocks of the devices are communicatively linked, function block execution timing data and function block bus communication scheduling data” disclosed in Burns.

In contrast Applicants disclose “mote-addressed control index” as follows:

[0035] In various implementations, contemporaneous with and/or subsequent to index creation agent 202 communicating with the device entities, index creation unit 202 creates one or more mote-addressed content indexes which in some implementations are associated with the mote-network address of the mote at which index creation unit 202 resides. The inventors point out that examples of the term “index,” and/or phrases containing the term “index,” exist in the text (e.g., independent claims, dependent claims, detailed description, and/or summary) and/or drawings forming the present application and that such term and/or phrases may have scopes different from like terms and/or phrases used in other contexts. Mote 200 is depicted for sake of illustration as having a mote-address of 6A. Accordingly, specific examples of more general mote-addressed content indexes are shown in FIG. 2 as mote 6A-addressed sensing index 204 and mote 6A-addressed control index 206, which respectively list the sensing and control capabilities in association with device-identifiers associated with devices present and/or available at mote 200; in addition, shown as yet another specific example of more general mote-addressed content indexes is mote 6A-addressed routing/spatial index 252 which typically contains a listing of mote-network addresses of those motes directly accessible from mote 200 and such directly accessible motes’ spatial orientations relative to mote 200 and/or some other common spatial reference location (e.g., GPS)..

*See Detailed Description, Jung et al., US 2006/0079285, p. 3, paragraph [0035] (emphasis added).*

Furthermore “motes”, by persons with ordinary skill in the art, are considered to be different in kind from general sensors, actuators, controllers, etc. and related networks. Burns

does not use the term “mote” or “smart dust”. Burns explicitly discloses “physical device connection data, device identity data, process control function data indicating one or more function blocks capable of being performed by each of the devices, function block communication data pertaining to the manner in which the function blocks of the devices are communicatively linked, function block execution timing data and function block bus communication scheduling data” However, Burns does not disclose that any of the data is “mote-addressed” as recited in clause [b] of Independent Claim 23. Consequently, Burns does not and can not teach “means for transmitting at least a part of one or more mote-addressed content indexes, said means for transmitting proximate to a portion of said mote” as recited in Independent Claim 23.

**Accordingly**, under the MPEP standards as set forth above, the art of record does not establish a *prima facie* case that Burns anticipates Independent Claim 23. Thus, Applicant respectfully asks Examiner to hold Independent Claim 23 allowable and to issue a Notice of Allowability of same.

#### IV. CONCLUSION

Applicant may have herein cancelled and/or amended one or more claims. Applicant does not consider the previously uncanceled/unamended claims unpatentable under post-issuance claim interpretation rules, but may have cancelled/amended herein at least in part because the PTO is not bound by post-issuance claim interpretation rules. Accordingly, Applicant respectfully submits that any cancellations and/or amendments herein should be held to be tangential to and/or unrelated to patentability in the event such cancellations and/or amendments are viewed in a post-issuance context under post-issuance claim interpretation rules.

Insofar as that the Applicant may have herein cancelled/amended claims sufficient to obtain a Notice of Allowability of all claims pending, Applicant may not have herein explicitly addressed all rejections and/or statements in Examiner’s Office Action. The fact that rejections and/or statements may not be herein explicitly addressed should NOT be taken as an admission of any sort, and Applicant hereby reserves any and all rights to contest such rejections and/or statements at a later time. Specifically, no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended (e.g., with respect to any facts of which Examiner took Official

Notice, and/or for which Examiner has supplied no objective showing, Applicant hereby contests those facts and requests express documentary proof of such facts at such time at which such facts may become relevant). For example, although not expressly set forth herein, Applicant continues to assert all points of any previous Office Action, and no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended. Specifically, insofar as that Applicant does not consider the cancelled/unamended claims to be unpatentable, Applicant hereby gives notice that it intends to file and/or has filed a continuing application in order prosecute such unamended claims.

While particular aspects of the present subject matter described herein have been shown and described, it will be apparent to those skilled in the art that, based upon the teachings herein, changes and modifications may be made without departing from the subject matter described herein and its broader aspects and, therefore, the appended claims are to encompass within their scope all such changes and modifications as are within the true spirit and scope of the subject matter described herein. Furthermore, in those instances where a convention analogous to “at least one of A, B, and C, etc.” is used, in general such a construction is intended in the sense one having skill in the art would understand the convention (e.g., “ a system having at least one of A, B, and C” would include but not be limited to systems that have A alone, B alone, C alone, A and B together, A and C together, B and C together, and/or A, B, and C together, etc.). In those instances where a convention analogous to “at least one of A, B, or C, etc.” is used, in general such a construction is intended in the sense one having skill in the art would understand the convention (e.g., “ a system having at least one of A, B, or C” would include but not be limited to systems that have A alone, B alone, C alone, A and B together, A and C together, B and C together, and/or A, B, and C together, etc.). It will be further understood by those within the art that virtually any disjunctive word and/or phrase presenting two or more alternative terms, whether in the description, claims, or drawings, should be understood to contemplate the possibilities of including one of the terms, either of the terms, or both terms. For example, the phrase “A or B” will be understood to include the possibilities of “A” or “B” or “A and B.”

With respect to any cancelled claims, such cancelled claims were and continue to be a part of the original and/or present patent application(s). Applicant hereby reserves all rights to present any cancelled claim or claims for examination at a later time in this or another application. Applicant hereby gives public notice that any cancelled claims are still to be considered as present in all related patent application(s) (e.g. the original and/or present patent

application) for all appropriate purposes (e.g., written description and/or enablement). Applicant does NOT intend to dedicate the subject matter of any cancelled claims to the public.

The Examiner is encouraged to contact the undersigned by telephone at (206) 315-7913 to discuss the above and any other distinctions between the claims and the applied references, if desired. Also, if the Examiner notes any informalities in the claims, he is encouraged to contact the undersigned to expediently correct such informalities.

Respectfully submitted,

Dated: June 14, 2007



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Rustan J. Hill  
Attorney  
Registration No. 37,351